

What is claimed is:

1. Foil seal lamp in which an end of a glass bulb is provided with a seal area, and which comprises:

- a metal foil of molybdenum which is placed in the seal area, and
- a molybdenum outer lead, which has a first end connected to the metal foil and a second end that extend out of the bulb,  
wherein a protective coating of crystalline molybdate is provided on the surfaces of both the metal foil and the outer lead in the seal area.

2. Foil seal lamp as claimed in claim 1, wherein the surface of the outer lead in the seal areas is rough.

3. Foil seal lamp as claimed in claim 1, wherein a protective coating of crystalline molybdate is also provided on an area of the outer lead which projects from the seal area.

4. Foil seal lamp as claimed in claim 3, wherein at least the area of the outer lead which projects from the seal area is rough.

5. Foil seal lamp as claimed in claim 4, wherein the surface roughness is from 0.20 to 0.51  $\mu\text{m}$ .

6. Foil seal lamp as claimed in claim 2, wherein the surface roughness is from 0.20 to 0.51  $\mu\text{m}$ .

7. Foil seal lamp as claimed in claim 1, wherein the primary material of the protective coating of molybdate has one of a wolframite or a scheelite crystal structure.

8. Foil seal lamp as claimed in claim 1, wherein an element in addition to oxygen and molybdenum of the crystalline molybdate is selected from at least one of the elements of the group consisting of magnesium, calcium, strontium, barium, manganese, cobalt, nickel, titanium, scandium, yttrium, lanthanum, cerium, praseodymium, neodymium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, and lutetium.

9. Foil seal lamp as claimed in claim 8, wherein the protective coating primarily consists of one of the molybdates  $MnMoO_4$ ,  $MgMoO_4$ ,  $SrMoO_4$ , and  $(Ni-Mn)MoO_4$ .

10. Foil seal lamp as claimed in claim 1, wherein said protective coating has a ratio of an x-ray diffraction intensity ratio of the crystalline molybdate to the ratio of the x-ray diffraction intensity of the other produced compounds that is at least 50 %.